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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,963	11/21/2003	Joseph M. Starita	3994648-129161C	4418
7590 08/09/2005 Dinsmore & Shohl, LLP One South Main Street, Suite 1300 Dayton Centre, OH 45402-2023			EXAMINER DANIELS, MATTHEW J	
			ART UNIT 1732	PAPER NUMBER

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/718,963

Applicant(s)

STARITA, JOSEPH M.

Examiner

Matthew J. Daniels

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication..
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. **Claims 1-5 and 10**, drawn to an apparatus, classified in class 425, subclass 388.
  - II. **Claims 6-9**, drawn to methods, classified in class 264, subclass 506.
2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice another and materially different process, such as forming and dewatering of ceramic slurries for insulators or spark plugs.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, recognized divergent subject matter, and because the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Richard Kilworth on 26 July 2005 a provisional election was made **without** traverse to prosecute the invention of Group II, claims 6-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-5 and 10 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

5. **Claim 8** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is drawn to the pressure change in the slit over the pressure change in the channel. However, the only limitation that can be found is that the ratio of the pressure changes is ">>1." The Examiner submits that this is vague and indefinite because it does not set forth the metes and bounds of the protection sought.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 6, 7, and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by Dickhut (USPN 4718844). **As to Claim 6**, Dickhut teaches a method for delivering uniform vacuum pressure in the process of thermoforming a corrugated plastic pipe in a mold, comprising the steps of:

a) providing at least one vacuum port (3:33-53) connected to a channel located on an external lateral surface of the mold (Fig. 3, Item 28), the channel being axially concentric with a corrugation located on an internal lateral surface of the mold (Fig. 3, Item 34), the width of the channel corresponding approximately to the width of the corrugation (Fig. 3, Item 34);

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b) forming an air-tight manifold by providing an outer cover on the external lateral surface (See Fig. 2, Items 22, 28, 42), the manifold being ported to a plurality of slits formed in the corrugation through a plurality of slots in the mold (Fig. 3, Item 28), the slots having a large cross-sectional area relative to the aggregate area of the slits (Fig. 3, Items 28 and 34);

c) connecting vacuum source to said at least one vacuum port (3:33-53); and

d) exerting an essentially uniform negative pressure on each one of the plurality of slots, such that the change in negative pressure across the slots is small relative to the change in negative pressure across the slits (This aspect is inherent in that the structure is met and the slits are smaller in area than the manifold that surrounds them). **As to Claim 7**, each of Dickhut's slots has the same width (Fig. 3, Item 34 or 28). **As to Claim 9**, Dickhut teaches a method for efficiently removing heat during thermoforming comprising the steps of:

a) providing at least one vacuum port connected to a channel located on an external lateral surface of the mold that is axially concentric with a corrugation located on an internal lateral surface of the mold, the width of the channel corresponding approximately to the width of the corrugation (3:15-53);

b) forming an air-tight manifold by providing a first cover on the external lateral surface (3:15-53 and Fig. 2, Items 22, 28, 42);

c) providing a second cover that forms an outer circumferential duct between the channel and said second cover (4:1-23);

d) connecting a source of high velocity cooling air to an opening in the second cover (4:1-23 and Fig. 1, Item 72); and

e) forcing a turbulent flow of cooling air through the duct (4:1-23).

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7. **Claim 8** is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dickhut (USPN 4718844). Dickhut teaches the subject matter of Claim 6 above. See the rejection of Claim 6 under 35 USC 102(b). Although Dickhut appears to be silent to the claimed ratio being much greater than 1, it is the Examiner's position that because the apparatus is similar to that of Dickhut, and Dickhut's method would have inherently or obviously met the claimed ratio when vacuum was applied. Note the similarity between Fig. 10 in the instant application and Dickhut's Fig. 3.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Thursday, 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 7/28/05



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SUPERVISORY PATENT EXAMINER